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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,125	05/23/2001	Zhenan Bao	22-55-18-3-95-1	1476

7590

08/06/2003

Docket Administrator (Room 3J-219)  
Lucent Technologies Inc.  
101 Crawfords Corner Road  
Holmdel, NJ 07733

EXAMINER

SCOTT, JAMES R

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n No.

09/864,125

Applicant(s)

BAO ET AL. *en*

Examiner

James R Scott

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Claims***

**DETAILED ACTION**

***Drawings***

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 3/20/2002 have been \*made of record in the application. The formal drawings appear acceptable to the Examiner.

***Rejections - 35 USC § 112***

Claims 3-5 7-11,13,14, and 15-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3-5 and 15-17 are indefinite because a channel, which is a structural configuration, has no electrical properties. How can a channel per se decrease in resistance at least 10000 ohms or have a resistance of 10 million ohms if light is not reflected on the channel or have a breakdown voltage of at least 50 volts? Claims 7-11 do not clearly describe the different features of the photoelectric material. Does the dopant include the electron acceptor and the electron donor? Claims 13-15 and 25-27 do not clearly state the details of the mems device and its relationship with the organic switch and circuit . Claims 16-24 28-31 are likewise indefinite for failing to clearly state the structural features and the manner of operation,

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Serizawa et al. Note first and second electrodes 9,10, a channel consisting of the side edges of the electrodes and the upper surface of the non numbered substrate supporting the two electrodes and photosensitive organic material 8 extending and over the electrodes and the channel. The light rays from the light source 3 produces a wavelength to change the conductivity of the organic material so that the material in the region including the electrodes and organic material act as an optically controlled switch. The organic material is applied to the insulator 11 or substrate. Note col. 5, line 20 to col.10, line 37.

As shown in fig. 2 the light rays from the light source illuminate the entire length of the channel. The electrodes 19a or 19b may be made of the same conductive material . Note col. 6, lines 58-63.

Claims 13-15,25,27 are rejected under 35 U.S.C. 102(b) as being anticipated by Serizawa. The Serizawa components at 1-4,5 and 7 is a microminiature system which does not preclude the structure as constituting a mem device.

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Claims 28-31, which disclose the method of operating the mem device and photosensitive switch, are rejected under 35 U.S.C. 102(b) as being anticipated by Serizawa noting figures 1-3 and figures 4-7 and col. 5 to col. 9..

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serizawa as applied to claims 1 and 25,above, and further in view of Liedenbaum.

The Serizawa et al light source is not necessarily digitally modulated.

Liedenbaum teaches that it is old to digitally modulate a light source noting col.4, lines 22-25 to provide a light source which may be pulsating at low and high levels. Accordingly it would have been obvious to one skilled in the art to modify the Serizawa et al light source and control circuitry (not shown) to include a digitally modulating unit and circuitry as suggested by Liedenbaum in order to provide modulation of the light at various desired wavelengths for optically controlling the Serizawa et al switching component 9,8,10,11.

**Summary**

Claims 1-31 have been rejected.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R Scott whose telephone number is 703-308-2013. The examiner can normally be reached on any workday between 1-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 703-308-7619. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

JRScott: jrs

July 28, 2003

  
J. R. SCOTT  
PRIMARY EXAMINER  
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